

**In the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method of outputting an alert that an unauthorized event has occurred, the method comprising:
  - obtaining a status from a sensor;
  - retrieving personnel information comprising identity and status information for the personnel from a database, the personnel information relating to the sensor;
  - generating the alert;
  - applying a filter to determine whether to modify a severity of the alert; and
  - re-evaluating the severity of the alert to generate a modified alert severity  $S_{\text{mod}}$  when it is determined to modify the severity of the alert; and
  - outputting the alert;
  - wherein  $S_{\text{mod}} = S_0 + (G * N_{\text{same}}) + (H * N_{\text{adjacent}}) - (I * (1 - C(t)))$ ;
  - $S_0$  is a preset severity associated with the alert;
  - G, H, and I are preset constants;
  - $N_{\text{same}}$  is a number of alerts in an access zone within a preset time window;
  - $N_{\text{adjacent}}$  is a number of alerts in access zones adjacent to the access zone within the preset time window; and
  - $C(t)$  is a certainty associated with the alert at a time t.
  - ~~wherein the status information comprises job category and authorized access zone information.~~
2. (Original) The method of claim 1, further comprising retrieving information relating to a prior event from the database.

3. (Original) The method of claim 1, further comprising accumulating the alert.
4. (Canceled)
5. (Original) The method of claim 1, further comprising re-evaluating an uncertainty of the alert.
6. (Original) The method of claim 1, further comprising applying a filter to determine whether to limit outputting of the alert.
7. (Original) The method of claim 1, further comprising outputting a recommendation relating to the alert.
8. (Original) The method of claim 1, wherein obtaining a status from a sensor includes obtaining a status from one of an infrared sensor, a physical sensor, a motion detection sensor, a wireless sensor, an audio pattern recognition device, a video pattern recognition device, a card reader, a biometric sensor, a software monitoring device, a trip wire, an electric eye, a pressure sensor, an access panel switch, a door switch, a microwave sensor, and a System Network Management Protocol (SNMP) trap/event message.
9. (Original) The method of claim 1, wherein outputting the alert includes outputting one of a telephone message, an electronic message, a pager message, a visual indication, and an auditory indication.
10. (Currently amended) A system for outputting an alert, the system comprising:
  - a sensor interface;
  - a database; and
  - an alert processor in communication with the sensor interface and the database,wherein the alert processor is configured to retrieve personnel information from the database,

generate the alert, apply a filter to determine whether to modify a severity of the alert, and output the alert;

wherein the alert processor includes an alert uncertainty and severity estimation module the alert processor being configured to re-evaluate the severity of the alert to generate a modified alert severity  $S_{mod}$  when it is determined to modify the severity of the alert;

wherein the personnel information comprises identity and status information for the personnel and is related to the sensor; and

wherein  $S_{mod} = S_0 + (G * N_{same}) + (H * N_{adjacent}) - (I * (1 - C(t)))$ ;

$S_0$  is a preset severity associated with the alert;

G, H, and I are preset constants;

$N_{same}$  is a number of alerts in an access zone within a preset time window;

$N_{adjacent}$  is a number of alerts in access zones adjacent to the access zone within the preset time window; and

$C(t)$  is a certainty associated with the alert at a time t.

~~wherein the status information comprises job category and authorized access zone information.~~

11. (Original) The system of claim 10, wherein the alert processor includes an alert generation module.

12. (Original) The system of claim 10, wherein the alert processor includes an input module.

13. (Original) The system of claim 10, wherein the alert processor includes a filter module.

14. (Canceled)

15. (Original) The system of claim 10, wherein the alert processor includes a rule and algorithm update module.

16. (Original) The system of claim 10, wherein the alert processor includes a filter/mode selection module.

17. (Original) The system of claim 10, wherein the alert processor includes an alert output module.

18. (Currently amended) A computer readable medium having stored thereon instructions which, when executed, cause a processor to:

obtain a status from a sensor;

retrieve personnel information comprising identity and status information for the personnel from a database, the personnel information relating to the sensor;

generate an alert;

apply a filter to determine whether to modify a severity of the alert; and

re-evaluate the severity of the alert to generate a modified alert severity  $S_{mod}$  when it is determined to modify the severity of the alert; and

output the alert;

wherein  $S_{mod} = S_0 + (G * N_{same}) + (H * N_{adjacent}) - (I * (1 - C(t)))$ ;

$S_0$  is a preset severity associated with the alert;

G, H, and I are preset constants;

$N_{same}$  is a number of alerts in an access zone within a preset time window;

$N_{adjacent}$  is a number of alerts in access zones adjacent to the access zone within the preset time window; and

$C(t)$  is a certainty associated with the alert at a time t.

~~wherein the status information comprises job category and authorized access zone information.~~

19. (Original) The computer readable medium of claim 18, having stored thereon additional instructions that cause the processor to obtain a status from one of an infrared sensor, a physical sensor, a motion detection sensor, a wireless sensor, an audio pattern recognition device, a trip wire, an electronic eye, a pressure sensor, an access panel switch, a door switch, a microwave sensor, and a System Network Management Protocol (SNMP) trap source/event message.

20. (Original) The computer readable medium of claim 18, having stored thereon additional instructions that cause the processor to output one of a telephone message, an electronic message, a pager message, a visual indication, and an auditory indication.